CLAIMS:

1.   A communication system comprising a first cluster (100) of interconnected devices, having at least a controlling device (102) and a controlled device (103), functionality of the controlled device (103) being associated with an abstract representation, referred to as AR, which provides an interface for controlling the controlled device, the AR (104) for the

5   controlled device (103) being installed on the controlling device (102), the system further comprising a second cluster (105) of interconnected devices, the first and second clusters (100, 105) being interconnected via respective gateway devices (107, 108), characterized in that the system further comprises a near proxy (109) on a device in the first cluster (100) and a far proxy (110) on a device in the second cluster (105), the near proxy (109) being arranged

10   to interact with the AR (104) in dependence on information received from the far proxy (110) and to transfer to the far proxy (110) the results of said interacting, the far proxy (110) being arranged to transfer to the near proxy (109) information received from an application device (111) in the second cluster (105) and to interact with the application device (111) in the second cluster (105) in dependence on information received from the near proxy (109).

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2.   A communication system according to claim 1, characterized in that the system is arranged to generate and to install the near proxy (109) on a device in the first cluster (100) and the far proxy (110) on a device in the second cluster (105) in response to the application device (111) in the second cluster (105) wishing to interact with the AR (104)

20   installed on the controlling device (102).

3.   A communication system according to claim 2, characterized in that the controlling device (102) is arranged to generate and to transmit the near proxy (109) and the far proxy (110) to the respective devices on the first and second clusters (100, 105).

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4.   A communication system according to claim 2 or 3, characterized in that the system is arranged to remove the near proxy (109) from the device in the first cluster (100) and the far proxy (110) from the device in the second cluster (105) when the application device (111) in the second cluster (105) has ceased interacting with the far proxy (110).

5.　　　　　A communication system according to claim 1, 2, 3 or 4, characterized in that the system further comprises a third cluster (200) of interconnected devices, the second and third clusters (105, 200) being interconnected via respective gateway devices (111, 202), and in that the application device (111) in the second cluster (105) has a further near proxy (203) being arranged to interact with the far proxy (110) in dependence on information received from a further far proxy (204) on the third cluster (200) and to transfer to the further far proxy (204) the results of said interacting.

6.　　　　　A communication system according to claim 1, characterized in that the device in a cluster on which a proxy is installed is a gateway device.

7.　　　　　A device for use in a communication system comprising a first cluster (100) of interconnected devices, having at least a controlling device (102) and a controlled device (103), functionality of the controlled device (103) being associated with an abstract representation, referred to as AR, which provides an interface for controlling the controlled device, the AR (104) for the controlled device (103) being installed on the controlling device (102), the system further comprising a second cluster (105) of interconnected devices, the first and second clusters (100, 105) being interconnected via respective gateway devices (107, 108), characterized in that the device is arranged to install a near proxy (109) arranged to interact with the AR (104) in dependence on information received from a far proxy (110) and to transfer to the far proxy (110) the results of said interacting

8.　　　　　A device according to claim 7, characterized in that the device is further arranged to remove the near proxy (109) when an application device (111) in the second cluster (105) has ceased interacting with the far proxy (110).

9.　　　　　A device for use in a communication system comprising a first cluster (100) of interconnected devices, having at least a controlling device (102) and a controlled device (103), functionality of the controlled device (103) being associated with an abstract representation, referred to as AR, which provides an interface for controlling the controlled device, the AR (104) for the controlled device (103) being installed on the controlling device (102), the system further comprising a second cluster (105) of interconnected devices, the first and second clusters (100, 105) being interconnected via respective gateway devices

(107, 108), characterized in that the device is arranged to install a far proxy (110) arranged to transfer to a near proxy (109) information received from an application device (111) in the second cluster (105) and to interact with the application device (111) in the second cluster (105) in dependence on information received from the near proxy (109).

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10.   A device according to claim 9, characterized in that the device is further arranged to remove the far proxy (110) when the application device (111) in the second cluster (105) has ceased interacting with the far proxy (110).